

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Cancelled)

2. (Currently Amended) An apparatus for fabricating a multi-fiber polarization-maintaining fiber assembly comprising:

a clamping jig and an orientation adjusting unit,

the ~~claiming~~ clamping jig including a ferrule clamping means for clamping a multi-fiber ferrule so as not to be rotated and ~~[[an]]~~ a fiber cable clamping means for clamping polarization-maintaining fiber cables so as to be rotated,

the orientation adjusting unit including:

an imaging means for imaging a leading end of the polarization-maintaining fiber cables, wherein each of said fiber cables is axially parallel to and radially spaced from each other of said fiber cables held in the multi-fiber ferrule clamped by the clamping jig,

an image processing means for identifying the orientation of each of the polarization-maintaining fiber cables based on each image of the leading end of the polarization-maintaining fiber cables, and

an orientation adjustment controlling means for controllably driving the fiber cable clamping means to axially rotate each of the polarization-

maintaining fiber cables for automatically adjusting the orientation of each of the polarization-maintaining fiber cables.

3. (Original) An apparatus for fabricating a multi-fiber polarization-maintaining fiber assembly according to claim 2, wherein the orientation adjustment controlling means is arranged to axially rotate the polarization-maintaining fiber cables and when a stabilization time has been passed, check the orientation.

4. (Currently Amended) An apparatus for fabricating a multi-fiber polarization-maintaining fiber assembly according to claim 2, wherein:

the clamping jig includes a heating means for heating up the multi-fiber ferrule clamped by the ferrule clamping means, and

the orientation adjusting unit includes a heatup controlling means for controllably ~~driving the heating and curing, after the orientation adjustment, to heat and cure the thermoset resins~~ resin disposed in the multi-fiber ferrule for setting the orientation of the polarization-maintaining fiber cables after orientation adjustment.

5. (Currently Amended) An apparatus for fabricating a multi-fiber polarization-maintaining fiber assembly according to claim 3, wherein:
the clamping jig includes a heating means for heating up the multi-fiber ferrule clamped by the ferrule clamping means, and
the orientation adjusting unit includes a heatup controlling means for controllably ~~driving the heating and curing, after the orientation adjustment, to heat and cure the thermoset resins~~ resin disposed in the multi-fiber ferrule for setting the orientation of the polarization-maintaining fiber cables after orientation adjustment

6. (New) The apparatus of claim 2, wherein:

the image processing means:

identifies a set of stressed portions on the end of each of said fiber cables and defines a geometric correlation for each set of the stressed portions;

provides a comparison of the geometric correlations for each of said fiber cables to determine the relative orientation between each of said fiber cables; and

determines a required rotation angle for each of said fiber cables from the relative orientation between each of said fiber cables; and

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the orientation adjustment controlling means controllably drives the fiber cable clamping means to axially rotate each of the fiber cables by the respective determined rotation angle for automatically adjusting the orientation of each of the fiber cables.